WHAT IS CLAIMED IS:

1. A method, comprising:

obtaining a source device to profile connection space transform and a destination device to profile connection space transform; and

combining source device to profile connection space transform and the destination device to profile connection space transform and producing a device to device transform.

2. A method as recited in claim 1, wherein said combining modifies the source device to profile connection space transform with a source to destination gamut mapping transform.

3. A method as recited in claim 1, wherein said combining combines the destination device to profile connection space transform with an inking manifold matching input dimensions of the destination device to profile connection space transform with output dimensions of the destination device to profile connection space transform.

4. A method as recited in claim 3, wherein the inking manifold controls ink utilization.

5. A method of creating a composite transformation converting a color in a source space into a color in a destination space using [device > PCS] transformations for a source and destination device, comprising:

modifying a domain of the [device > PCS] transform from a destination device profile with an ink manifold producing a modified [device > PCS] transform with three input dimensions;

modifying a range of the [device > PCS] transform from a source device profile producing PCS coordinates all within the range of the modified [device > PCS] transform;

inverting the modified destination [device > PCS] transform using values in the modified source [device > PCS] transform to produce a [device > device] transform; and

modifying a range of the [device > device] transform by applying the inking manifold transform to yield coordinates in the domain of the destination device.

6. A method as recited in claim 5, wherein user preference information, concerning one of the ink manifold and a gamut mapping is one of a default and extracted from the profiles.

7. A method as recited in claim 5, wherein the inking manifold is the identity.

8. A method as recited in claim 5, wherein the [device > PCS] transformations are one of: tags in a profile; polynomials; and multi-dimensional interpolation tables.

9. A method as recited in claim 5, wherein the [device > device] transform is saved as a device link.

10. A method for producing a composite transform from one device A color space to device B color space ([device A > device B]), comprising:

modifying a [device A > PCS] where colors are within the range of the [device B > PCS] transform and account for non-colorimetric requirements;

modifying a [device B > PCS] making the [device B > PCS] invertible by adding additional output channels and adding equivalent output channels to the [device A > PCS] transform; and

inverting the modified [device B >PCS] transform for each value in the modified [device A> PCS] transform.

11. A method as recited in claim 10, wherein the added output channels comprise a mathematical function expressing ink utilization preferences.

12. A method for producing a composite transform from one device A color space to device B color space ([device A > device B]), comprising:

modifying a destination [device B > PCS] transform having a destination device space to have a unique inverse producing a modified destination [device B > PCS] transform;

modifying a source [device A > PCS] transform to have a range contained in a range of the modified destination [device > PCS] transform;

inverting the modified destination [device > PCS] transform for each value in the modified source [device > PCS] transform; and

converting contents of the resulting [device > device] transform back to the destination device space.

13. A method of creating a composite transformation converting a color in a source space from a source device into a color in a destination space for a destination device, comprising:

obtaining [device > PCS] transformations for a source and destination device each having multi-dimensional interpolation tables and obtaining user preference information extracted from the profiles;

modifying a domain of the [device > PCS] transform from a destination device profile with an ink manifold producing three input dimensions producing a modified [device > PCS] transform where the inking manifold controls gray component replacement;

modifying a range of the [device > PCS] transform from a source device profile where PCS coordinates are all within the range of the modified [device > PCS] transform responsive to the user preference gamut mapping information;

inverting the modified [device > PCS] transform using values in the source transform range to produce a [device > device] transform;

modifying a range of the [device > device] transform by applying the inking manifold transform to yield coordinates in the domain of the destination device; and

transforming an image from the source device into an image for the destination device using the [device > device] transform.

14. A method, comprising:

obtaining a source device to profile connection space transform and a destination device to profile connection space transform; and

determining a mapping between the source device to profile connection space transform and the destination device to profile connection space transform producing a device to device transform.

15. A method as recited in claim 14, wherein the mapping corrects for differences in viewing conditions corresponding to the PCS of the source transform and those of the PCS values of the destination transform.

16. A method as recited in claim 14, wherein the mapping is chosen to preserve existing inter-relationships between source device code values.

17. A method, comprising:

obtaining only forward transforms from a source device profile and a destination device profile; and

combining the forward transforms producing a device to device transform.

18. A system, comprising:

a transform source having a source device to profile connection space transform and a destination device to profile connection space transform; and

computer combining the source device to profile connection space transform and a destination device to profile connection space transform and producing a device to device-transform.

19. A system as recited in claim 18, wherein said computer maps colors from a source device to a destination device using the device to device transform.

20. A computer readable storage controlling a computer by combining a source device to profile connection space transform and the destination device to profile connection space transform and producing a device to device transform.